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Chair

Mr. Bill Casey

Standing Committee on Health

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● (1530)

[*English*]

The Vice-Chair (Ms. Marilyn Gladu (Sarnia—Lambton, CPC)): Good afternoon. Welcome to meeting number 108 of the health committee. Today we are going to be studying diabetes strategies in Canada and abroad.

I want to take the opportunity to welcome Terry Beech and Peter Fragiskatos, who have joined our committee members today.

We have some excellent witnesses with us. From the Public Health Agency of Canada, we have Gerry Gallagher, executive director of the centre for chronic disease prevention and health equity, health promotion and chronic disease prevention branch; and Jennette Toews, chief, centre for surveillance and applied research, health promotion and chronic disease prevention branch.

Along with them we have Alfred Aziz, chief, nutrition regulations and standards division, Department of Health; and Valerie Gideon, senior assistant deputy minister, first nations and Inuit health branch, Department of Indigenous Services Canada.

The Public Health Agency of Canada and the Department of Indigenous Services will each have seven minutes to present to the committee.

We'll begin with Gerry Gallagher.

Ms. Gerry Gallagher (Executive Director, Centre for Chronic Disease Prevention and Health Equity, Health Promotion and Chronic Disease Prevention Branch, Public Health Agency of Canada): Thank you for the opportunity, Madam Chair, to address the standing committee with regard to the Public Health Agency of Canada's role in addressing diabetes and other chronic diseases in Canada.

Our role is threefold: to obtain data to better understand the patterns and trends related to chronic diseases; to gather, generate, and share evidence to inform policies and programs; and to design, test, and scale up innovative interventions to prevent chronic disease. We do this in collaboration with partners from within and outside the health sector.

Diabetes, as you know, is a chronic condition that affects Canadians of all ages. Each year, close to 200,000 Canadians are newly diagnosed with diabetes, and approximately 90% of those have type 2. Currently, about three million Canadians are living with diagnosed diabetes, and with the growth and aging of the Canadian population, the number of Canadians living with diabetes is expected to continue to increase in the coming years.

Some Canadians are at increased risk of diabetes, such as first nations, Métis peoples, and immigrants. There are higher rates of diabetes among Canadians with lower incomes and education. For example, if the prevalence of diabetes among adults who have not completed high school were as low as that of university graduates, we would see 180,500 fewer cases of diabetes in Canada.

Diabetes and many other chronic diseases, such as cancer, cardiovascular disease, and chronic respiratory diseases, are largely preventable. Scientific evidence demonstrates that by eating healthier, increasing physical activity, not smoking, and moderating alcohol use, the onset of many chronic diseases can be prevented or delayed. That is why the Public Health Agency of Canada takes an integrated approach to promote healthy living and prevent chronic disease.

[*Translation*]

Through our health surveillance function, we are able to better understand the impact of chronic diseases and risk and protective factors. For instance, in collaboration with all provinces and territories, we conduct national surveillance of diabetes and 20 other chronic conditions to support the planning and evaluation of related policies and programs.

The Pan-Canadian Health Inequalities Reporting Initiative includes new insights into how diabetes impacts different groups of Canadians in different contexts. Products include an interactive online data pool and a narrative report on key health inequalities in Canada. This initiative is a partnership between the Public Health Agency of Canada, the provinces and territories, Statistics Canada, the Canadian Institute for Health Information and the First Nations Information Governance Centre.

We recognize that innovative solutions and partnerships with health and other sectors are needed to better address the complex challenges of chronic disease prevention. The Canadian Task Force on Preventive Health Care develops evidence-based clinical practice guidelines to support Canadian primary care providers. The Task Force published recommendations on screening for type 2 diabetes in 2012. The Public Health Agency of Canada funds and provides scientific support to this independent arms-length body.

To help Canadians understand their risk factors and motivate them to make lifestyle changes to prevent diabetes, the Public Health Agency of Canada has developed CANRISK. It is a questionnaire that provides an individual risk score and guidance on how to reduce risk for diabetes. CANRISK is accessible to Canadians through partnerships with Diabetes Canada as well as with Shoppers Drug Mart, Pharmasave, Rexall, Loblaws and others.

[*English*]

Since its launch in 2013, our multisectoral partnerships approach to promote healthy living and prevent chronic disease has invested $73 million and leveraged another $57 million in non-government sources to support innovative interventions that address the common risk factors that underlie major chronic diseases, including diabetes.

For example, Play for Prevention is a Right to Play and Maple Leaf Sports Entertainment Foundation project, which uses an activity-based approach to youth empowerment to address diabetes prevention in urban indigenous peoples. Trained community mentors plan and lead events that have engaged over 1,000 children and youth in 16 cities across Ontario, Alberta, and British Columbia in helping active lifestyle programming.

The healthy weights initiative is a culturally adapted community-specific partnership with Alliance Wellness and Rehabilitation Inc., the YMCA, and the University of Saskatchewan. It is an evidence-based program for adults, which includes physical activity support, nutrition education, and social supports. It has demonstrated significant improvements to address unhealthy weights and encourage a healthier lifestyle.

● (1535)

In addition, budget 2018 proposed to provide an additional $25 million over five years, starting in 2018-19, for Participaction to increase participation in daily physical activity among Canadians.

[*Translation*]

The Public Health Agency of Canada works closely with Government of Canada partners such as Health Canada and Indigenous Services Canada.

Scientific research has established again and again that poor diet is a primary risk factor for these conditions. This is why Health Canada launched the comprehensive Healthy Eating Strategy in October 2016. This is made up of complementary mutually-reinforcing initiatives which will make it easier for Canadians to make healthier choices for themselves and for their families. The strategy includes important mandate commitments to promote public health by restricting the marketing of unhealthy foods to children, eliminating trans fat and reducing salt, and improving labelling on packaged foods, including front-of-pack labelling initiatives.

The Public Health Agency of Canada also collaborates with federal, provincial and territorial partners. For example, since the endorsement by ministers of the Declaration on Prevention and Promotion in 2010, we have partnered on initiatives to promote healthy weights and curb childhood obesity.

We are now working towards a common vision and collaborative approaches to support Canadians to move more and sit less.

[*English*]

In addition, we collaborate globally, contributing to and learning from the global evidence base, as a World Health Organization collaborating centre on non-communicable disease policy.

In closing, I want to thank the Standing Committee on Health for examining diabetes strategies in Canada and abroad. Through data, evidence, tools, innovation, and partnerships, the Public Health Agency of Canada is advancing our collective efforts to prevent diabetes and other chronic conditions among Canadians.

We'd be pleased to answer any questions you may have and look forward to reading your report.

The Vice-Chair (Ms. Marilyn Gladu): Thank you very much.

Now, we go to the Department of Indigenous Services Canada.

Ms. Valerie Gideon (Senior Assistant Deputy Minister, First Nations and Inuit Health Branch, Department of Indigenous Services Canada): I'd like to start by acknowledging that we're on unceded Algonquin territory today. As a member of the Micmac Nation of Gesgapegiag First Nation in the region of Quebec, I am pleased to have been asked to speak to you today about diabetes and other chronic diseases among indigenous peoples across Canada.

I'll begin by sharing some statistics with you on the prevalence of diabetes among indigenous peoples. Diabetes rates are three to four times higher among first nations than among the general Canadian population and all indigenous peoples are at increased risk of developing diabetes. Results from the last three cycles of the first nations regional health survey indicate that the prevalence of diabetes among first nations adults has remained steady, at approximately 19% to 20% over the past 14 years.

To help reduce the prevalence of type 2 diabetes, Indigenous Services Canada provides funding of $44.5 million annually for the aboriginal diabetes initiative to support community-based health promotion and disease prevention services in over 400 first nations and Inuit communities. First nations communities in British Columbia also receive these services, through support from the B. C. First Nations Health Authority, which took over our regional health-specific operations in 2013.

Indigenous Services Canada recognizes that food security is a critical issue for indigenous peoples and that it significantly impacts the health and well-being of individuals, families, and communities. As part of nutrition north Canada, Indigenous Services Canada and the Public Health Agency of Canada fund and support culturally appropriate community-based nutrition education activities in 111 eligible first nations and Inuit communities. Budget 2017 announced $828.2 million over five years to address key long-standing program gaps and improve health outcomes for first nations and Inuit, in areas such as primary care, home and community care, mental wellness, and many other areas.

[*Translation*]

As a concrete example, in fall 2017, the Government of Canada provided $19 million over four years to support first nation-led basic foot care services in all Manitoba first nations communities. In partnership with regional leadership councils, the first nations' basic food care program was developed to help clients in 63 Manitoba first nations communities to maintain their health and lower their risks from diabetes-related foot complications.

● (1540)

[*English*]

One significant advancement in the management of chronic disease prevention more generally is the development of a specific framework for indigenous peoples related to the prevention of chronic disease. The framework provides broad direction and identifies opportunities to improve access for individuals, families, and communities to appropriate, culturally relevant services and supports based on their needs at any point along the health continuum.

This framework was mirrored by Inuit Tapiriit Kanatami, which developed a specific framework to address the specific needs of Inuit in Canada.

[*Translation*]

Indigenous Services Canada has many mechanisms in place to ensure the engagement of partners. For example, engagement protocols were developed with the Assembly of First Nations and the Inuit Tapiriit Kanatami to advance a culture of respect, transparency and reciprocal accountability in support of the First Nations and Inuit Health Strategic Plan. These have been valuable tools for building and maintaining relationships.

[*English*]

There are also partnership tables with first nations and Inuit in every region to support joint planning and priority setting. These tables include bilateral tables, as well as trilateral tables with provincial and territorial governments.

Indigenous Services Canada values a collaborative approach with external indigenous and other organizations to advance health initiatives for first nations and Inuit. For example, in Saskatchewan we've partnered with the Dieticians of Canada on a six-month pilot project for the operation of a dietician call centre, which will provide free access to trusted food and nutrition advice via telephone or email to all first nations communities in Saskatchewan, including more isolated and remote communities.

Through our non-insured health benefits program, a number of diabetes treatment supports are offered.

[*Translation*]

First, a total of 12 diabetes medications to date are covered, with additional medications pending decision, and are aligned with the Canadian Agency for Drugs and Technologies in Health's recommendations and other public drug plans.

[*English*]

Blood glucose test strips are an open benefit under the NIHB program. As well, a range of medical supplies and equipment is available to support clients facing complications from diabetes, such as wound-care supplies, mobility devices, and prosthetic devices.

Lastly, the non-insured health benefits program provides medical transportation coverage, including accommodations and meals, so that clients can access health services not available to them in the community where they live.

[*Translation*]

Indigenous Services Canada is working collaboratively with provinces, territories, other federal departments, and with indigenous partners to ensure that data linkages are supported where possible and that health survey data are available to inform health care planning.

[*English*]

More specifically, over the past 17 years, the first nations information governance centre's regional health survey has provided national, on-reserve, and Yukon first nations' prevalence rates of health status and lifestyle risk behaviours.

Through budget 2018, the federal government announced $82 million over 10 years, with $6 million per year ongoing, for the co-creation of a permanent Inuit health survey.

In summary, Indigenous Services Canada is committed to reducing the prevalence of type 2 diabetes and related complications in first nations and Inuit communities across Canada.

[*Translation*]

While progress has been made, we are committed to continuing to work in partnership with indigenous peoples to address diabetes and its risk factors.

Thank you. *Wela'lin.*

The Vice-Chair (Ms. Marilyn Gladu): Thank you very much.

[*English*]

We'll now go to our rounds of questions, beginning with my colleague Mr. McKinnon for seven minutes.

Mr. Ron McKinnon (Coquitlam—Port Coquitlam, Lib.): Thank you, Chair.

The witnesses may be aware that our committee recently released a report on national pharmacare. We know that part of proper diabetes treatment is the medications that Canadians rely on to reduce their blood glucose levels, and we know that it's essential for diabetics to take their medication.

This is a question for the Public Health Agency to start with. Can you tell us if modern diabetes medications are included across all formularies in Canada and what gaps might exist in diabetes medicine coverage across Canada?

Ms. Gerry Gallagher: The department responsible for addressing your question is Health Canada.

Dr. Aziz, do you want to address that?

Dr. Alfred Aziz (Chief, Nutrition Regulations and Standards Division, Department of Health): I think we can take that to the department, but I want to just make sure that I communicate that Health Canada is responsible for the approval of medications for the treatment of diabetes, and for the review of their safety and efficacy. Anything potentially related to formularies is within provincial jurisdiction. I will take this question back to my department and we'll provide further answers.

● (1545)

Mr. Ron McKinnon: Thank you.

I guess I'll pass that question along, as well, to the Department of Indigenous Services.

Under the non-insured health benefits plan, are there any significant gaps? Does it encompass everything it needs to do to provide good coverage for people?

Ms. Valerie Gideon: Yes, that would be our assessment. We follow CADTH recommendations, and we align ourselves with other public insurance plans across the country.

Mr. Ron McKinnon: Are you aware of any gaps in public services elsewhere that we might need to know about?

Ms. Valerie Gideon: We do have experts in our department who could answer that question in about five seconds, but I apologize that I don't have the comparison of all the PT drug formularies. However, it is information we have and could provide.

Mr. Ron McKinnon: I'm going to stay with you. You mentioned the higher rate of diabetes among indigenous populations. You mentioned it is three to four times higher on reserve than general population, and I have information here that says urban indigenous people have double the incidence of the regular population.

Do you have anything you can correlate that to? What is the cause of that? Is it a genetic predisposition, or is it because this is poorest demographic we have in Canada, or...? What would you suggest is the cause of that?

Ms. Valerie Gideon: Well, I would certainly say that the research has demonstrated that we see more acute health care conditions—through hospitalization data, for instance—from first nations who are living in remote or isolated communities. Diabetes screening, early screening, and prevention are extremely important in those circumstances.

Why has there not been a decline, with respect to prevalence, over the number of years we have been gathering data? We don't have anything conclusive that I can provide to you, but I will say we do believe that the social determinants of health—poverty, food security, the displacement of families, and intergenerational impacts—all would likely contribute to that answer. We don't have conclusive research evidence to provide to you at this time.

Mr. Ron McKinnon: It would suggest, I think, because the incidence is different for urban indigenous people versus those on reserve, that the conditions on the reserve are not generally amenable to improving their health outcomes in this respect. Would that be appropriate?

Ms. Valerie Gideon: Yes.

Mr. Ron McKinnon: Thank you.

Ms. Gallagher, you mentioned that you expect the incidence of diabetes to be increasing in the coming years. To what do you attribute that increase?

Ms. Gerry Gallagher: I'll turn to Jennette Toews for our assessment on that issue.

Ms. Jennette Toews (Chief, Centre for Surveillance and Applied Research, Health Promotion and Chronic Disease Prevention Branch, Public Health Agency of Canada): The prevalence of diabetes is increasing. That's the number of Canadians who are living with diabetes in Canada. However, we are finding that the incidence rate is dropping. In the last 10 years, from 2006 to 2014, there has been a decline in the number of new cases of diagnosed diabetes. We don't know at this point, though, what is behind the drop in incidence.

Mr. Ron McKinnon: To clarify, you're saying that the number of cases is going up, but the incidence is going down. That's because we have a growing population; is that it?

Ms. Jennette Toews: Yes, it's due to the growing population, our aging population, and the fact that people living with diabetes are living longer.

Mr. Ron McKinnon: Okay.

Ms. Gallagher, you spoke of an online data tool to report on various aspects. Could you elaborate on that a bit?

Ms. Gerry Gallagher: Yes, the pan-Canadian health inequalities reporting initiative has two dimensions. One is an online data tool that looks at more than 70 indicators of health inequality—health behaviours, as well as broader determinants of health. That was made available last year. It's possible to pull up data specific to diabetes in different subpopulations. Just today, there is a release of a narrative report that tells more of the narrative around the top inequalities in Canada, of which diabetes is one. That's something that may be of interest to this table.

Mr. Ron McKinnon: Who would use this tool? Is this for the general public, physicians, or medical practitioners?

Ms. Gerry Gallagher: It is a tool that's available, certainly, for planners and health professionals. It is also user-friendly in the sense that it is quite an easy tool to get basic information with several clicks, as far as looking at a condition is concerned or looking at a subpopulation of interest. We also offer webinars to professionals so they better understand how to use this data accordingly.

● (1550)

Mr. Ron McKinnon: Is this for acquiring data about the circumstances out there, or is this for disseminating information about diabetes in the community?

Ms. Gerry Gallagher: This is a tool intended to understand at a baseline level the large range of health inequalities in Canada. As I said, diabetes is one of those conditions that can be.... Data from a variety of sources is gathered in that tool. As far as tools for Canadians are concerned, there are a number of things that complement that. One is a guide for Canadians on diabetes, and this is available. It describes the different types of diabetes and risk factors for that.

The other thing that I would refer to is called CANRISK, which is an early detection tool available in most pharmacies across the country. I mentioned that in my remarks.

The Vice-Chair (Ms. Marilyn Gladu): Thank you.

Mr. Webber.

Mr. Len Webber (Calgary Confederation, CPC): Thank you, Madam Chair.

Also, thank you, Madam Sidhu, for bringing this important issue on diabetes to our committee.

I had the honour a number of years ago, when my hair was a bit darker, to serve as the aboriginal relations minister in Alberta. I knew the prevalence of diabetes back then was extremely high, and it continues to be.

Ms. Gideon, you talked about some of the treatments that are offered to on-reserve indigenous people, things like test strips, medical supplies, and 12 types of diabetes medications. Are insulin pumps offered to the aboriginal indigenous communities as well? Are they also offered to people who are off-reserve?

Ms. Valerie Gideon: Yes.

Anybody who is a registered first nation or recognized in it, regardless of where they live and regardless of their income, receives coverage under the non-insured health benefits program.

Mr. Len Webber: Do you have any idea of the cost of an insulin pump for an individual?

Ms. Valerie Gideon: I don't know but we can follow up for sure.

Mr. Len Webber: I'm just curious about that.

That's for on-reserve indigenous first nations, and off-reserve as well.

Ms. Valerie Gideon: Yes, it's for off-reserve as well. But it's for registered first nations and recognized Inuit.

Mr. Len Webber: This is a question to anyone else here on the panel who can answer this with regard to insulin pumps throughout the country. Are they offered now? I know back then they weren't. We worked hard in Alberta to get that coverage. Are insulin pumps, along with test strips, covered right now throughout the country?

Dr. Alfred Aziz: I wouldn't know the answer to that question. I know that we are responsible at Health Canada for approval of these types of products under medical devices, for example. Their availability around the country depends, first of all, on their approval. I'll get back to you on that. In terms of whether they are available in the provinces and where they are available, etc., that would be under provincial jurisdiction.

Mr. Len Webber: Yes, it's under provincial jurisdiction. That's right. I thought maybe you might have known.

To continue with Ms. Gideon, you also talked about transportation and accommodation for on-reserve indigenous individuals to go into a centre to seek treatment. Is it quite a popular item that indigenous people certainly take advantage of? Is it something that would require more funding than what's there now, or are things working okay with that?

Ms. Valerie Gideon: In the last budget 2018, we were able to rebase the non-insured health benefits program and also allow for growth to accommodate growing demand and need. It is a needs-based program so it's very difficult as it's not capped. The government has accommodated that growth at this time. Medical transportation is an extremely large benefit. It's the second-largest benefit that we offer. It is very highly utilized; however, the unfortunate piece of that is that where the provincial health systems there has been a centralization of certain services within urban centres, it means that community members unfortunately have to travel farther distances. We always try to encourage joint planning between indigenous peoples and provincial health care systems so that they can talk about where the services could be located. More and more, first nations are interested in creating their own health authorities or bringing services closer to home. Dialysis, as an example, is a service that can really disconnect family members from their families and from their communities and can be a significant hardship for families. While we would offer medical transportation and accommodation in urban centres, it's definitely not the best solution. The best solution is to offer as many services as possible close to home for those clients who have chronic disease.

● (1555)

Mr. Len Webber: Great.

A number of our panellists at the last meeting talked about a national diabetes strategy and how important it is to have a strategy.

Ms. Gideon, what should be the key elements for a national diabetes strategy for indigenous Canadians? What would you throw in there?

Ms. Valerie Gideon: That's a big question.

I will humbly say that in the past, the chronic disease prevention framework that was developed with the first nations—now the Inuit have their own, really, and copies of that could be provided to the committee—essentially was a program-by-program approach in communities and health care systems. People would get lost if they weren't caught by one program or another, so this is about creating a continuum of services along a lifespan, with culture as the foundation. Indigenous people certainly share that aspect of it.

It's also about looking at that connection to the social determinants of health. For instance, if a mom is pregnant and gets a prenatal visit, there is also education provided to her about healthy living for herself; planning for the family to have healthy nutrition; preparing for baby to come; continuing that follow-up when baby comes; and, making sure she's attending public health sessions with respect to healthy living and doing it within that context. Then, when her child goes to an aboriginal head start program, there's nutrition education in the program, so that when they're at the preschool level, kids are informed about what types of healthy foods are available to them and how they should seek out the connection to oral health. There's a connection between nutrition and oral health as well; we have the children's oral health initiative.

Really, it's not so much a diabetes strategy. People have moved away from one disease-specific or illness-specific western medical model of strategy development and more into this holistic framework approach. We have one for mental wellness. It's the same concept with chronic disease.

Mr. Len Webber: That's excellent.

Again, Ms. Gideon, with respect to culturally relevant treatment, can you give me some examples?

Ms. Valerie Gideon: Well, in the language, in the indigenous language for sure, and also in having more of a verbal type of relationship versus a written one, in telling stories in nutrition education, and in having community sessions that connect and bring elders and youth together and doing that on the land. Those are some examples.

Mr. Len Webber: Thank you.

The Vice-Chair (Ms. Marilyn Gladu): We'll go now to my colleague Don Davies for seven minutes.

Mr. Don Davies (Vancouver Kingsway, NDP): Thank you, witnesses, for being here. You've already had a positive impact. It's the first meeting I've been to where there are no cookies. I've never seen such healthy snacks.

Voices: Oh, oh!

Mr. Don Davies: At the last meeting, we heard from some witnesses from Diabetes Canada. The word that was used there for the 2013 Auditor General's report regarding the underperformance of the diabetes strategy was "scathing". I'm going to quote from the report from 2013. It says:

> While the Public Health Agency of Canada has collaborated with the provinces and territories to address common risk factors for chronic diseases, such as childhood obesity, its management practices for delivering programs and activities under the Canadian Diabetes Strategy are weak. It has not defined a strategy, priorities, performance measures, deliverables, timelines, and expected results to effectively deliver programs and activities. Furthermore, the Agency has not coordinated its diabetes activities internally. As a result, the Agency does not know whether its activities have had an impact on the well-being of people who live with diabetes or who are at risk of developing the disease.

I'd like to fast-forward to 2018. How successful have we been in addressing those concerns? Where are we at today?

Ms. Gerry Gallagher: I can begin.

What I can say is that over the last number of years, starting in 2010, there has been a real shift towards a more integrated approach for chronic disease prevention. Valerie spoke to that earlier. A number of changes were under way in that time period. We have seen a much stronger emphasis on performance management and reporting, with very clear indicators. Looking at our grants and contributions program as an example, we're looking at the number of participants and what we're seeing in terms of concrete behavioural changes when looking at physical activity and healthy eating. We also have much more rigorous processes in place in terms of where those funds are allocated so that we can track it over time.

As far as the issue of coordination goes, we work closely with Health Canada, Indigenous Services Canada, and the provinces and territories. We have also made great strides in working outside the health sector. This is consistent with where the global direction is going, which is to move away from disease-specific strategies into looking more at the risk factors that are common to the major chronic diseases, or what we call the "four-by-four". In particular, the agency focuses on three of those, which are unhealthy eating, physical inactivity and sedentary behaviour, and tobacco reduction.

● (1600)

Mr. Don Davies: Could you give me some sort of sense of where we are? If 2013 were ground zero in terms of all those criticisms, where are you today? Are you halfway there, three-quarters of the way there, 25% of the way to where you want to be? Give me a sense of the progress that has been made since that report.

Ms. Gerry Gallagher: On each of the dimensions of the report, there has been significant progress made. As I mentioned, from the perspective of strategy development, we use an integrated strategy for healthy living and prevention of chronic disease. That is articulated.

As far as the coordination of efforts, we do have mechanisms in place. There were some recommendations around surveillance and how we collect that data. There have been good gains made in that area.

The other area was around information to the public. I talked earlier about CANRISK. I talked about "Your Guide to Diabetes". We've talked about the guidance to practitioners in primary care settings.

Mr. Don Davies: Thank you.

I'm going to turn to Ms. Gideon. The numbers with respect to indigenous Canadians are quite shocking, actually. Diabetes Canada has said that 80% of the indigenous population is at risk of getting diabetes. I think you might have said that everybody is at risk in the indigenous population.

It seems that again in the 2013 Auditor General's Report it called for Health Canada to properly measure outcomes of the aboriginal diabetes initiative. In response, Health Canada agreed to:

> ...enhance...performance measures...to assess the impact of the ADI; ...use these enhanced performance measures...to assess and advance the diabetes activities funded under the ADI; and provide increased support to regions to use data for health status reporting...

I think you testified that the numbers are pretty much static in terms of the indigenous population. Given that, are we making progress with respect to diabetes in the indigenous population, or are we not?

Ms. Valerie Gideon: I think we made a significant amount of progress with respect to awareness, access to screening, access to treatments and foot care, and so forth. I think that where the work really remains is those underlying risk factors with respect to socio-economic status and food security. I think this is where we really do need to..., and it's a challenge for the country as a whole. It's absolutely accentuated with respect to indigenous peoples, but I do think it has been a significant underlying issue that we need to continue to work on.

We've made some significant access improvements also in terms of access to primary care services, more access to nurse practitioners, more access to diagnostics, and more access to telehealth and a lot of other tools.

Mr. Don Davies: I'm not going to put words in your mouth. It sounds like what you're saying is that we're having better treatment but that, in terms of the number of people who actually have diabetes, that's not stable.

Ms. Valerie Gideon: The prevalence continues to remain stable at 19% to 20%.

Mr. Don Davies: I agree with you very much about the social determinants. You mentioned poverty, food security, and so on. What's being done at the federal government level to address those social determinants, particularly in the indigenous population?

Ms. Valerie Gideon: The whole mandate of the new department that I'm part of at Indigenous Services Canada is specifically to better address the social determinants of health by breaking through those separations across sectors and across mandates, and bringing common purpose services together in one service strategy. Our minister's commitment is absolutely to develop that.

I have spent my entire career in first nations and Inuit health, and I've already seen a tremendous amount of momentum with respect to drawing the linkages between education, social services, health, and really developing a single window service for communities.

Communities have had the flexibility, for the most part, to be able to do comprehensive community planning and to bring those services and investments together, but the federal government perpetuated this program-by-program and sector-by-sector cycle so that for every program you had a job.

It's hard to break through that in a community to and let go of the sense of ownership that people had. It has been an evolution, but I think a lot of communities have broken through those silos and are working together in a multidisciplinary health team, which is frankly what you need to do in order to ensure that you can follow that individual from birth to death, and actually take them through that full continuum of service.

● (1605)

Mr. Don Davies: Thank you.

The Vice-Chair (Ms. Marilyn Gladu): Now we'll go to Ms. Sidhu for seven minutes.

Ms. Sonia Sidhu (Brampton South, Lib.): Thank you all for being here today—all the nurses. I would also like to thank all committee members for voting unanimously for my motion to perform this diabetes study so that we can move forward to address diabetes more effectively in the future.

My question is to Mrs. Gallagher. In the Peel region, where my riding of Brampton South is located, they have had a higher incidence of diabetes than in any other part of Ontario for more than 20 years. This is called the hub of diabetes. How we are measuring the outcomes and inequities? How does Health Canada plan to address the social determinants of health, such as food insecurity and access to culturally relevant cures, as we address the diabetes epidemic? How are the outcomes measured and assessed?

Ms. Gerry Gallagher: Perhaps I can start and then turn to Alfred.

On the first question about performance measures, we have strengthened our approach to performance measures. We look across our programming from an integrated perspective. A performance measurement framework is in place. It looks at behavioural changes for project participants. It also looks at social and physical environments to support those behavioural changes. We have moved away from awareness only to looking for concrete and measurable health outcomes, and are now starting to look at physiological measures for some of our project programming.

That's the approach. I'm happy to share with you the performance measurement framework that we use for our integrated chronic disease program.

On the second question around inequalities, I spoke earlier about our role in understanding the portrait of health inequalities in Canada, as well as the narrative and the contextual considerations related to that. We've done a lot of work over the last five years related to that. The data tool is one part of that initiative.

The narrative report is a much richer part of the storytelling, in terms of the interaction between broader contextual factors—culture, tradition, interaction—and a lot of other considerations, such as income and education, to name a few, that look at the determinants of health and interaction with actual health behaviours, health status, and health outcomes. That's another role that we play.

As far as the broader work on acting on those determinants is concerned, we are taking steps with our programs to move further upstream. We know that Peel is a leader in this area in terms of looking at builds in social environments, to have the spaces and places where folks make the healthy choice and easier choice, whether that means access to walkability or to affordable food choices within their community.

Ms. Sonia Sidhu: In the pre-budget submission, Diabetes Canada recommended adopting a Canadian strategy for diabetes prevention and management, the "90-90-90 target for diabetes by 2021". The target means that by 2021, 90% of those at risk of living with diabetes will be aware of their status, 90% of those will be receiving treatment, and 90% of those will have improving health.

We saw success with the 90-90-90 strategy agreement for HIV and AIDS. Do you think we could see the same sort of success if we implement it with diabetes?

I'm asking Health Canada to answer this question.

Dr. Alfred Aziz: I do not have an answer for this, but I would like to build on what Ms. Gallagher mentioned regarding Health Canada's role with respect to diabetes.

As I mentioned earlier, Health Canada is responsible for regulating food and health products.

Specifically with diabetes, we regulate medications and drugs that are approved for the treatment of diabetes. We also have a role in providing Canadians with information about food, health, and nutrition so that they can make informed decisions about their health.

In 2016, Health Canada launched the healthy eating strategy. It was put in place to improve the food environment so that the healthier choice becomes the easier choice for Canadians.

We're working along four different themes. We are improving nutrition information through improving Canada's food guide, as well as improving food labels and providing information on the front of the package. We're also building a team around protecting vulnerable subpopulations, including restricting the marketing of unhealthy food and beverages for children, so that they are set up for a better start in life and are prevented from developing these chronic diseases, like diabetes, later in life.

With respect to food security, nutrition north Canada was put in place, and indigenous services are working on that now.

In terms of food security under the food policy for Canada, that is under the leadership of the Department of Agriculture and the Minister of Agriculture.

● (1610)

Ms. Sonia Sidhu: My question is to PHAC.

We know there are a number of countries that have a national diabetes registry, such as Sweden.

Do you think a single national registry both for type 1 and type 2 diabetes is possible in Canada?

Ms. Gerry Gallagher: I'll turn to Jennette for that.

Ms. Jennette Toews: I can't speak to it from a care management perspective, but from a national surveillance perspective, we have very good strong data on diabetes in Canada

. We do monitoring through the Canadian chronic disease surveillance system. This is a partnership with all the provinces and territories, using health administrative data. We have information on 97% of Canadians, anyone who is part of the health insurance program.

In terms of a specific registry, I think there would need to be some cost benefit, and it may be more of a provincial-territorial role.

Ms. Sonia Sidhu: Sometimes diabetes goes undiagnosed due to stigma. How will your proposed strategy deal with the stigma? Do you think Diabetes Canada's 90-90-90 strategy is going to be helpful for that?

Ms. Gerry Gallagher: We do know that the awareness of diabetes and its risks is an important consideration, and our chief public health officer is looking at the issue of stigma across a range of diseases, because we do see this, not only for diabetes, but a lot of other conditions, both chronic as well as infectious. It's something that's very much of interest as it relates to the interaction between mental health and physical health.

As far as comparing the 90-90-90 approach with that of HIV/AIDS, our team is looking at that. There are some considerations from a comparability view. They are two very different conditions. There are some important measurement issues to be considered, so on that one, I would just say that we're looking at that closely.

The Vice-Chair (Ms. Marilyn Gladu): Excellent. That's your time.

I want to thank all of our witnesses for your very informative input to our study. I appreciate it very much. Any comments that you want to make or information that you want to add can be sent to the clerk.

We're going to suspend briefly while we change panels.

● (1610)

(Pause)

● (1615)

The Vice-Chair (Ms. Marilyn Gladu): We're back again, and we are continuing with our study of diabetes strategies in Canada and abroad.

We are happy to have with us today, from the National Aboriginal Diabetes Association, Roslynn Baird, who is the chair, and Dr. Agnes Coutinho, who is the past chair.

[*Translation*]

We also have Dr. Mélanie Henderson, from the Centre hospitalier universitaire Sainte-Justine, by videoconference, but we are having some video problems. We are going to try again and see what happens.

[*English*]

We're going to start with Roslynn.

You have 10 minutes to share.

Ms. Roslynn Baird (Chair, National Aboriginal Diabetes Association): Thank you. Good afternoon, *bonjour*, *boozhoo*, *tansi*, *sekoh*, *aanii*n.

We thank you for the opportunity to address the Standing Committee on Health. We would like to acknowledge that we are visitors here today on the traditional unceded territories of the Algonquin people.

We are here today to address the Standing Committee on Health to advocate on behalf of the National Aboriginal Diabetes Association, also known as NADA, and all those working with, or who are affected by, diabetes to ensure that this pandemic affecting indigenous peoples in Canada is recognized as a top national health priority.

Type 2, type 1, and gestational diabetes are on the rise, and the complications, such as amputation, blindness, and heart disease, are devastating our communities. According to the Truth and Reconciliation Commission call to action 19, aboriginal health is a direct result of government policies, including residential schools, and it is only through change that the health gap between indigenous and non-indigenous peoples can be closed.

Dr. Agnes Coutinho (Past Chair, National Aboriginal Diabetes Association): NADA is a non-profit, member-led organization. It was established in 1995 in a response to the rising and alarming rates of diabetes among indigenous peoples in Canada. NADA is funded by Health Canada, first nations and Inuit health branch. It is a knowledge transfer and networking hub for aboriginal diabetes initiative workers, health care professionals, community diabetes prevention workers, and all first nations, Inuit, and Métis peoples living with diabetes across the nation. NADA's mission is to lead the promotion of healthy environments and to prevent and manage diabetes by working together with people, communities, and organizations.

Our goals are to develop, provide, and facilitate resources for diabetes prevention, management, education, and research; to establish and nurture partnerships and collaboration with people, communities, and organizations; to support people, communities, and organizations in developing and enhancing their ability to promote healthy environments; and to advocate to ensure that the epidemic of diabetes among our peoples and communities is a national health priority.

Ms. Roslynn Baird: According to a recent study, approximately eight in 10 indigenous young adults will develop type 2 diabetes in their lifetime, compared with five in 10 in the general Canadian population. In fact, diabetes is three to five times higher now in the indigenous population and the onset of this debilitating illness is around the forties, while the rest of society tends to be affected later in life. Alarmingly, diabetes among indigenous peoples is no longer an adult condition, as children as young as five are diagnosed with type 2 diabetes. This disease was almost unknown in the aboriginal communities prior to the 1950s.

There are a number of complex factors contributing to the higher rates of diabetes in the indigenous population. The impact of diabetes varies also between regions and communities, and is highest among the first nations and lowest among the Inuit populations. However, the rates of diabetes are on the rise among the Inuit as well. The causes are rooted in the abrupt and forced socio-cultural changes to our traditional ways over the past several decades.

The first nations regional health survey, referred to as FNRHS, released in 2015-16, provides some of the available data in support of the recommendations that NADA brings forward today. Like many studies on aboriginal Canadians, this does not represent all first nations and does not reflect any Métis or Inuit in the data. The prevalence of diabetes among first nations in this study was an alarming 20% in females and 18% in males. One in 10 children had a mother diagnosed with gestational diabetes, which is diabetes during pregnancy. Seventeen per cent of women were pregnant when first diagnosed with diabetes and 83% of them were told they had diabetes outside of pregnancy. More than half of the first nations adults with diabetes have experienced at least one major complication. Over 25% had complications with neuropathy, retinopathy, and circulation; 21% had complications with lower limbs; and 2.4% of cases resulted in amputation.

Since the Truth and Reconciliation Commission final report released in 2015, our non-indigenous partners are just now realizing the devastating proportion of those affected by diabetes and the severity of complications of diabetes in our communities. However, together with our partners, community-based organizations, and individuals, NADA has been aware of the escalating and devastating impact of diabetes in our communities for over two decades.

Since its inception, NADA has created and implemented a wide range of clinical, health promotion, and support activities aimed at reducing the incidence and prevalence of diabetes and improving the health status of indigenous peoples, families, and communities across the nation. NADA has continually advocated for expansion of our capacity to deliver culturally appropriate and uninterrupted programming through education, prevention, and treatment strategies, as well as research initiatives.

● (1630)

Dr. Agnes Coutinho: NADA respectfully recommends that the Government of Canada acknowledge that diabetes among indigenous peoples of Canada is a systemic disease at pandemic levels and requires immediate attention. There is a large and unpredictable gap in the potential health benefits available through our advanced Canadian health system to indigenous peoples with diabetes across the nation and in comparison to non-indigenous groups.

The following points reflect key areas that NADA has identified as having critical impact on the current rate of diabetes and its complications. These are our recommendations.

Support diabetes programs, services, and research to be led by indigenous peoples. Current non-indigenous organizations and efforts focused on diabetes and related chronic conditions do not address the unique cultural needs of indigenous peoples and do not take into account each community's needs, culture, and interests. The growing gap in health outcomes and ability to provide appropriate means to facilitate suitable diabetes management and prevention can only succeed with direct and collaborative consultation with indigenous peoples. Indigenous Canadians must be able to draw upon their own cultural traditions in the design and delivery of programs and research.

NADA requests that funding must reflect the severity of the situation surrounding the current state of health of the indigenous population, especially with regard to diabetes. NADA requests support to continue to lead a collaborative effort to empower its peoples, communities, and partner organizations in order to enhance their ability to foster healthy environments for improved diabetes prevention and management. We reference Truth and Reconciliation Commission call to action 19, which talks about chronic diseases and the availability of appropriate health services.

Ms. Roslynn Baird: Our second recommendation is to prioritize food sovereignty.

NADA supports culturally competent and safe environments for living, learning, and working, with a focus on promoting healthy environments, for example in food security and mental health. A key priority area in addressing the diabetes pandemic is food sovereignty. It is imperative to recognize that the root causes of the current state of diabetes among indigenous peoples include colonized food systems; reserve systems; erosion of harvesting, trapping, fishing, and hunting rights; erosion of land bases; and access to clean water.

NADA recommends continued and open discussions with government departments and other sectors in identifying cross-sectoral approaches to creating healthy environments through policy and guideline development. We reference the TRC's call to action 18:

> We call upon the federal, provincial, territorial, and Aboriginal governments to acknowledge that the current state of Aboriginal health in Canada is a direct result of previous Canadian government policies, including residential schools...

As is our tradition, I want to tell a brief story. I have a couple of interesting documents. The document is from the Indian Office in Brantford, dated August 6, 1920. It's a request to pay $100 to support Norman General, a Six Nation Indian who was going to the Olympic Games in Antwerp, Belgium. The cheque would be payable to the Bank of Toronto in Brantford. In this reference, they "beg to state that General in training" and that the requested amount of money..."is a nice thing to have the Six Nations represented at a meeting of this sort". Subsequently, this was paid by the Indian trust fund of the Department of Indian Affairs to send Norman General to the Olympics. Norman General led a very long and healthy life as an Olympic runner and did very well at the Olympics. His niece, Helen Dockstader, went to the residential school in Brantford known as the "mush hole", from the age of three to the age of 15. She passed away from the effects of diabetes, as did most of her children, including her eldest son Andy Baird, my uncle. He was also a runner, but did not make it to the Olympics due to double amputation. We emphasize the direct result of residential schools on indigenous health.

The third recommendation is to provide access to appropriate care and treatment options and to traditional healers and medicines. Despite minimal funding, over the last 20 years, NADA has provided a platform for networking and sharing of traditional and new knowledge and skills, as well as for developing and distributing tools, resources, and services for diabetes management and prevention among aboriginal diabetes initiative and community diabetes prevention workers, health care professionals, and indigenous communities. NADA requests support from the government in building collaborative relationships with non-indigenous health care and industry sectors to establish comprehensive approaches for incorporating traditional healers and medicines, through best-practice sharing of the collective skills and knowledge. Open and respectful collaboration between the communities and external health care teams and authorities encourages trust and promotes continuity and consistency of diabetes care for community members.

● (1625)

Dr. Agnes Coutinho: Our fourth recommendation is to raise awareness about gestational diabetes and the rise of diabetes amongst young indigenous women. Currently, indigenous peoples have the highest birth rate in Canada, and 78% of indigenous women will have diabetes in the next five to 10 years. Gestational diabetes, including health complications and higher chance of developing type 2 diabetes later in life, is a major concern not just for the mother, but also for the baby. Collaborating on culturally sensitive approaches in this area is again a huge opportunity to bridge traditional and new knowledge and to close the gaps in health outcomes in maternal, as well as infant and child, health issues.

The Vice-Chair (Ms. Marilyn Gladu): Very good. Thank you very much. That's your time.

[*Translation*]

We will now hear from Dr. Mélanie Henderson.

Welcome. Can you hear us?

Dr. Melanie Henderson (Pediatric endocrinologist and Associate Professor, Centre hospitalier universitaire Sainte-Justine): Yes, thank you.

[*English*]

I can speak in English actually. It might be easier. Is that okay?

[*Translation*]

The Vice-Chair (Ms. Marilyn Gladu): Either language suits us fine.

[*English*]

You have 10 minutes, if you want to start.

Dr. Mélanie Henderson: Thank you.

I wish to thank the committee for the invitation to speak and to provide a pediatric perspective on diabetes in Canada.

I'm a pediatric endocrinologist and researcher at the CHU Sainte-Justine and co-director of a cardiovascular disease risk prevention program at Sainte-Justine called CIRCUIT.

Obesity is the number one risk factor for type 2 diabetes in children. Ninety-five per cent of children diagnosed with type 2 diabetes in Canada are obese. The prevalence of obesity in Canadian children has tripled over the last three decades. This is particularly alarming given the adverse consequences of obesity on type 2 diabetes and cardiovascular disease. This is compounded by the fact that obese children tend to become obese adults, with the substantial consequent morbidity and mortality associated with adult obesity.

Adolescent overweight is a predictor of mortality in adulthood regardless of adult weight and is in fact a stronger risk factor than adult overweight, underscoring the urgency to intervene early. Childhood obesity is a multifactorial condition. Lifestyle factors, such as low physical activity, sedentary behaviours, and poor nutrition, play an important role in its development and its maintenance.

Research tells us that higher physical activity levels and less screen time can lower the risk of type 2 diabetes in children, yet only 7% of children in Canada reach the recommended guidelines for levels of physical activity daily, whilst 45% exceed screen time recommendations. What's more, the level of physical activity is even lower among teenagers and children with obesity.

Sugar-sweetened beverage consumption is associated with prediabetes and obesity, and yet it still accounts for 2% to 18% of total caloric intake among children in Canada. Increasing fruit and vegetable intake may reduce the risk of type 2 diabetes, yet their consumption is inadequate or insufficient in Canadian children and adolescents.

Limiting saturated fat intake may also be beneficial to preventing diabetes in childhood, yet the highest consumers of fast food in Canada are adolescents. Clearly there is room to improve Canadian children's lifestyle habits.

Several countries have seen their rates of pediatric type 2 diabetes increase over the past years, mirroring the increase in obesity rates. While the actual prevalence of type 2 diabetes in Canadian children remains uncertain, hospital-based prevalence estimates have increased parallel to the increased prevalence in obesity. Moreover, prediabetic conditions are on the rise in youth, particularly obese youth. In fact more than a quarter of obese youth have been reported to have prediabetes. This is very, very significant given that obesity was traditionally an adult-onset disease with late-life complications. You can imagine when I'm treating a 14-year-old who has type 2 diabetes what that means in terms of eventual mortality and morbidity for that young person.

Importantly, type 2 diabetes appears to be much more aggressive in children than it is in adults. Indeed, among newly diagnosed youth with type 2 diabetes, 6% already have kidney complications at diagnosis; 13% already display eye complications at diagnosis; 4.5% have abnormal cholesterol levels at diagnosis; and 11.6% have high blood pressure at diagnosis. In addition, it appears that youth with type 2 diabetes require a rapid intensification of treatment, so they rapidly fail on a single oral medication and often require the use of insulin injections for treatment.

Recent evidence suggests that individuals diagnosed with type 2 diabetes at a young age are victims of cardiovascular disease events early on in life and that they will lose about 15 years of life expectancy on average.

The economic consequences of pediatric type 2 diabetes have been poorly documented, but understanding the economic burden of obesity is imperative given that it is the main cause of type 2 diabetes among children. At the national level, direct costs of overweight and obesity are estimated to be between $3.9 billion and $6 billion, which represents 4% of the total health care budget. This figure does not even take into account indirect costs.

The true cure for type 2 diabetes is probably to identify at-risk individuals and avoid deterioration through preventive strategies targeting childhood obesity and its associated lifestyle determinants. There is extensive evidence supporting the fact that lifestyle intensification and interventions in adults delay or possibly entirely prevent the transition from prediabetes to overt type 2 diabetes. While the evidence remains limited, similar findings in children have been demonstrated by my group and others.

● (1630)

Childhood represents a critical time frame in which to intervene to prevent and treat obesity by enhancing the adoption of healthy lifestyle habits and ultimately preventing type 2 diabetes and later cardiovascular disease in these vulnerable youth.

In addition to the increasing rates of childhood type 2 diabetes, recent reports show evidence of worldwide increases in the incidences of type 1 diabetes mellitus, particularly among children less than five years of age. Since 1990, the global incidence of type 1 diabetes has increased by 2.8% each year among youth less than 15 years of age, and Canada has not been spared by this increase.

Type 1 diabetes accounts for 90% of child and youth diabetes and is also among the most prevalent childhood chronic diseases in Canada. In 2010, the estimated economic burden of diabetes in Canada was $12.2 billion and projected to increase by another $4.7 billion by 2020.

The early onset of type 1 diabetes is particularly worrisome given its strong association with a marked increased risk of cardiovascular disease. In fact, individuals with type 1 diabetes are 10 times more likely to die of heart disease than their healthy peers.

While heart attacks and strokes occur in adulthood, atherosclerosis begins in childhood. This is well documented. Atherosclerosis in individuals with type 1 diabetes appears to be more aggressive. It occurs earlier; it is more diffuse; and it leads to higher death rates, cardiac failure, and shorter survival than in the general population.

Childhood represents a pivotal time period to prevent obesity and consequently type 2 diabetes but also the deleterious consequences, namely cardiovascular disease, of both type 1 and type 2 diabetes.

Recommendations emanating from this committee need to address the specific needs of children and adolescents. I humbly propose five recommendations to be considered by the committee.

The first is to provide access across Canada to proven, evidence-based, multidisciplinary programs to ensure the treatment of obesity, such as the CIRCUIT program at CHU Sainte-Justine. Children and adolescents will also benefit from access to proven, community-based obesity and cardiovascular disease prevention programs that target youth and are tailored to the community's needs.

Second, we should be favouring healthy lifestyle habits early in life and integrating them into preschool and school curriculums. As an example, mandatory daily physical education courses should be implemented in schools.

Third, treatment programs for the management of children with type 1 and type 2 diabetes should be tailored to their needs—in particular, those of vulnerable communities, such as first nations, which was clearly pointed out by the previously speakers.

Fourth, funding of high-quality research in the fields of pediatric obesity, type 1 diabetes, and type 2 diabetes is urgently needed in order to enhance our understanding of what the best strategies are for prevention and treatment to ultimately optimize the care of affected children and adolescents who will become the next generation of adults.

Finally, I think it's important that we implement educational efforts to sensitize families and primary health care providers to the early symptoms of diabetes for early screening and diagnosis among children and adolescents.

I wish to thank you for your time and for allowing me to give a voice to children and adolescents with diabetes, and I welcome any questions you may have.

● (1635)

The Vice-Chair (Ms. Marilyn Gladu): Thank you very much.

Now we're going to begin our round of questions, seven minutes each.

We'll begin with my colleague John Oliver, who is sharing his time with Sonia Sidhu.

Mr. John Oliver (Oakville, Lib.): Thank you very much for your presentations and also for the clarity of your recommendations. It was great that both of you took time, after a statement of the problems, to be very clear in what you thought the committee should be doing.

I do have a couple of quick follow-up questions for you, Dr. Henderson.

During your testimony you talked about obesity and a number of childhood risk factors, and then you said that we really should be working to identify at-risk individuals in order to begin interventions. I notice that your five recommendations would probably be much more effective if we were targeting those who are at risk. Did you have any thoughts on how at-risk individuals could be identified? Is it just the behavioural stuff, like growing obesity and inactivity, or are there other ways we could screen for at-risk individuals?

Dr. Mélanie Henderson: First, there are a lot of well-established risk factors for type 2 diabetes in children in particular. Obviously, obesity is the number one risk factor. Certain ethnic backgrounds are more at risk. Obviously sedentary behaviour, low physical activity, and poor nutrition are risk factors. The notion of having been exposed to gestational diabetes, which the previous speaker also discussed, is also a risk factor.

Primary caregivers could be sensitized to a number of risk factors, which would help us to identify the at-risk individuals and to be able to intervene. I think though, if you look at the population, the problem is that already 27% of Canadian children and adolescents are either overweight or obese. One in four children are affected. As clinicians, I think we have a role to identify at-risk youth. As a society we probably have to rethink some of the public health strategies we can use to prevent the onset of obesity, and also help to treat those who are already affected.

Mr. John Oliver: I know you are based in Quebec. Do you have any experience or awareness of the difficulty of accessing either drugs or specialized equipment for people with diabetes because of affordability?

In other words, if you are a child and your parent doesn't have insurance, is there a problem accessing drugs?

Dr. Mélanie Henderson: That's a very good question. I'm going to answer it in two ways.

Certainly there are technologies of interest for the treatment of type 1 diabetes in particular. I know the committee discussed the difference between type 1 and type 2 at the last session, but I'll just refresh everyone's memory.

Type 1 diabetes requires insulin administration via injections or an insulin pump, with a regular and routine blood glucose measurement. Currently there's no harmonized process across Canada for accessibility to pumps. Some provinces allow people to have access to pumps no matter what their age.

For example, in Quebec, if you're under 18 you have access to government coverage for a pump, but if you're over 18 you don't. If I have patients who are diagnosed at 17 and a half, I have six months to try to have them learn about type 1 diabetes, how to manage it, and then consider the pump. Because I know that after that, they won't be admissible for coverage. For the first year of the pump, that certainly means $10,000 of expenses.

In a similar vein, there are some very new technologies for monitoring blood glucose in a continuous fashion. Traditionally, we use a finger poke to check our blood sugar. There are devices now that can monitor it 240 times in a day without your having to poke yourself 240 times a day, which is obviously impossible. These technologies have a really significant impact on my management of my patients. That's not covered. It may be covered by some private insurance, but not universally.

Obviously, insulin is covered for children across Canada. That's fantastic. Access to insulin is not equal across the world. We're privileged in that sense. I think we do have some work to do to make some of the newer technologies for individuals with type 1 diabetes more accessible in a universal fashion.

● (1640)

Mr. John Oliver: Standardized treatment was your third recommendations?

Dr. Mélanie Henderson: Yes, it was.

My third recommendation also spoke to some of the particularities that the previous speakers also addressed in culturally sensitive programs to treat kids from specific vulnerable groups, for example, first nations. I think there's a lot of work to be done in that respect.

Mr. John Oliver: Thanks very much.

I'm going to share my time with Ms. Sidhu. I want to leave her a couple of minutes.

Ms. Sonia Sidhu: Thank you, John, for sharing your time with me.

Dr. Coutinho or Dr. Henderson, it is very difficult to get access to a doctor with patients often travelling far to urban centres to access care.

Last year I had the chance to visit Global Health Innovations; they showed me a behavioural mobile health app. They help individuals better manage diabetes.

Do you think virtual care centres or these kinds of apps will help those individuals?

Anyone can answer.

Dr. Agnes Coutinho: I can add my comment.

I think it really depends on the age group and accessibility to the Internet, for example. If you are addressing youth who are connected to devices and have uninterrupted access to the Internet, then that potentially may be a tool; however, if you're looking at more elderly individuals, those who may not have access to the Internet on a continuous basis—for example, in northern communities—those devices and apps and programs are not going to be as important and successful

Ms. Sonia Sidhu: Last year I went to IDF's conference. Their emphasis is on prenatal care. Do you think it's important that we emphasize that? Dr. Henderson said the obesity rate is very high—one in four children. If we can emphasize prenatal care—

The Vice-Chair (Ms. Marilyn Gladu): I'm sorry, you're out of time on that question.

We'll go to my colleague, Mr. Lobb, for seven minutes.

Mr. Ben Lobb (Huron—Bruce, CPC): Thanks very much.

If somebody already mentioned this, I might have missed it. Is there a distinguishable difference in the occurrence of type 1 between the indigenous community and others? Is there a difference in the percentages?

Ms. Roslynn Baird: It's been prevalently type 2 diabetes, but according to the regional health survey, type 1 is increasing.

Mr. Ben Lobb: Around the type 2 component, what have you done on the mental health side? Is that something you're looking to do? I noticed in the reading I've done leading up to the meeting that of course, mental health has a big impact for people with type 2 diabetes.

Dr. Mélanie Henderson: Can I answer that?

Mr. Ben Lobb: Sure, go ahead.

Dr. Mélanie Henderson: I love that question, because indeed, youth with type 2 diabetes are more at risk of binge eating and depression. In fact, at baseline, in some of the studies, 15% already have symptoms of depression. In addition, those who are obese, which is 95% of them, often live a lot of deleterious experiences. Their self-esteem is low. Their body image is low. They're often victims of bullying. And don't kid yourself. Bullying is not just in the schoolyard. It's also at home, with family members making derogatory comments about the person's weight. It's a very important problem.

Certainly in Quebec, clinicians have very few tools to address this. There are very few psychologists and psycho-educators there to support us. That's something we've integrated within our CIRCUIT program, because we felt it was very important to empower these families to make lifestyle changes and support their kids through some of the challenges they are living with.

● (1645)

Ms. Roslynn Baird: I'll just add that in our programming, we emphasize holistic care. It is the teaching of the medicine wheel. We're addressing the mental, physical, spiritual, and emotional aspect of the disease; and the person, the community, and the family. As well, we're coming from a trauma-informed care model, so our programming addresses stress and factors that influence a healthy outcome.

Mr. Ben Lobb: Do you think the government is making progress, or have we been spinning our wheels for a decade on addressing issues like this?

You can be honest.

Ms. Roslynn Baird: I also work in an indigenous program that's funded through the Ministry of Health and Long-Term Care. I've been the executive director of the Indigenous Diabetes Health Circle for about 20 years, and we do grassroots programming. Since the Truth and Reconciliation Commission calls to action, we've been called upon in droves; the non-indigenous community, the health care community, all really want to work with us now. I think there is a lot of opportunity coming up.

Mr. Ben Lobb: If you look strictly at the process of having pilot projects and building out from those—I know you're not starting from scratch—there has to be tremendous opportunity just from that. I understand the limitations on services, definitely from that standpoint, but to have a focus group of people that you can work on each and every day must pose a great opportunity for that community, I would think.

Ms. Roslynn Baird: Well, in my 20 years of working in indigenous diabetes, I haven't noticed a lot of surveillance data to draw upon, especially not in Ontario. I think there's a lot of work to be done.

Mr. Ben Lobb: Regarding technology, I had a meeting not too long ago with an upstart health technology company. Some of the work they do involves monitoring people who have chronic disease. The work they do is primarily in rural and northern communities, and then also in the southern states.

Understanding the limitations with Wi-Fi and networks and everything else, I think I read that this is a $1.8-billion issue worldwide every single year with diabetes. There are apps for this and apps for that, and I'm wondering why large technology companies, and even small technology companies, haven't taken to health technology the way in which it seems they have in entertainment and every other thing.

Ms. Roslynn Baird: That's a good question. We have been approached by people who do have ideas around apps. We do have a gestational diabetes program where we would be looking to support women through their pregnancies using an app.

There are a lot of ideas coming to our program now that we're looking into and bringing back to the communities for their input. It is something that's being brought to our attention. We're being asked to look at apps for wound care. It would include taking those apps into northern communities, and having even lay diabetes workers using the apps to send information about the wound. There would be more of a circle of care when there isn't a wound care professional in that community, or even a doctor, for example.

So we're on the verge of looking at those types of technologies, but no, they're not available.

Mr. Ben Lobb: I think I saw the app you're talking about. It can even detect, when a guy gets out of bed, if he hasn't taken his medication or if he's had something to eat and everything else. I think that's a tremendous—

Dr. Mélanie Henderson: Can I add something to that? From a pediatric and adolescent standpoint, apps are wonderful if people are motivated to use them. While children are very clicked in to the Internet and stuff, they're not particularly interested in using health care apps, from my experience. They're of interest, and I think we need to continue to develop these, but I think we also need to find ways to make them interesting for children and adolescents. We need to be sensitized to the fact that just because we adults think it's a fantastic idea, they might not actually embark on using them in an effective way, if you know what I mean.

● (1650)

The Vice-Chair (Ms. Marilyn Gladu): Absolutely.

Dr. Mélanie Henderson: They'll use Instagram well, though.

The Vice-Chair (Ms. Marilyn Gladu): We'll now go to Mr. Davies for seven minutes.

Mr. Don Davies: Thank you to the witnesses for being here.

Ms. Baird, I'd like to begin with you. It seems pretty clear to me that one of the driving forces behind type 2 diabetes is obesity, as we know, and that speaks to the food we eat. I think the phrase you used in your recommendation was "food sovereignty". I am making the assumption from your testimony and others' that having access to fresh, healthy food is a particular challenge in indigenous communities across this country, and maybe even in urban areas.

What does food sovereignty look like to you, and how do we get there?

Ms. Roslynn Baird: I guess I could use some examples and observations from when we travel into northern communities. We take our foot care program into some very remote places. We do a full day of treatment and care, and with that, traditionally we provide food. People come into the programming and we share food together. We use food as a teaching tool.

We've gone into northern communities where we can't find food to provide for these healthy sessions where we're trying to educate by using food as a tool. In the northern stores the food is just not affordable. The items that are affordable, such as pop and chips, are not healthy. We try to advocate for things like drinking water instead of pop. We've learned, as southern educators going into northern communities, that this doesn't work either. They have been on boil water advisories, as they have in Six Nations, which is very close to Toronto.

Sovereignty is having control over your food, knowing where your food comes from, having accessibility to the food, going back to having rights to harvest your own food, having clean fish, and having clean water. It's just the availability of food itself. To me, the feeling that it will always be accessible for future generations is sovereignty.

Mr. Don Davies: Can you give us a sense of whether we are or are not making progress? It's 2018. Are we making progress in that area? Are there programs being delivered as we speak here today that are addressing those issues in a significant manner, to make a real dent in food sovereignty for indigenous people?

Dr. Agnes Coutinho: Having travelled to some northern communities first-hand, I can say that the intent is there. There are programs to teach individuals and families about healthy living. However, it's very difficult for individuals to leave, for example, a workshop on healthy living and healthy eating, and go to the grocery store where a quarter of a watermelon is almost $16, two apples are $4, but an extra large chocolate bar is 99¢.

Paired with the programming that I think is already there, and if resources are provided to be able to deliver these as needed, I think that the other side of it has to be policy that will impact what is available and at what cost because it's very difficult to tell somebody to eat healthy, but give them no access to those healthy foods.

Mr. Don Davies: I think, Dr. Coutinho, that these were your words.

If not, maybe they were yours, Ms. Baird.

You called diabetes "a systemic disease at pandemic levels". That's a pretty jarring description of where we're at in 2018.

We just had some senior federal civil servants here. I was asking them about the degree of progress that we've made since the 2013 Auditor General's report, which I will say is scathing. It's just an across-the-board comprehensive indictment of the failure of the diabetes program at Health Canada at that time.

At that time in 2013, the AG's report called for Health Canada to commit to properly measuring outcomes of the aboriginal diabetes initiative. Health Canada agreed to enhance performance measures to assess the impact of the ADI, to use those enhanced performance measures to assess and advance the diabetes activities funded, and to provide increased support to regions to use data for health status reporting. In response to that report, Health Canada committed to doing all of that by the end of 2013.

Have you seen major changes or progress in the past five years since those better performance measures and enhanced programming commitments were made by Health Canada?

● (1655)

Ms. Roslynn Baird: In the indigenous communities, I would have to say that, no, I haven't seen that.

Mr. Don Davies: Dr. Coutinho, do you have an opinion?

Dr. Agnes Coutinho: I think that there are changes in discussions and approach. The fact that this is the first time that we're sitting at this table to represent the National Aboriginal Diabetes Association shows changes, but I think there's always room to improve.

Mr. Don Davies: Okay.

Dr. Henderson, I think educating people about what we eat is a very major part of this. Do you support front-of-package labelling so that consumers can directly see how much sugar, how many calories, and how much sodium are in the foods they are purchasing?

Dr. Mélanie Henderson: I do. I think there have been a lot of studies showing that certain methods used have been efficacious in reducing the consumption of certain deleterious foods. I think that is a definite step to reducing the consumption of foods that are probably very poor for health overall.

Mr. Don Davies: Do you have any opinion as a pediatrician on the marketing to children of foods that are not healthy for them? Is there any research that you're aware of that indicates whether that's effective or not?

Dr. Mélanie Henderson: There is some research to support the fact that banning marketing or ads, like television commercials, to children does decrease the desire for or the use of certain products. In Quebec, for example, there are some strong policies that restrict marketing to children.

I think that is a very excellent question because has anybody in the room has ever seen an ad for healthy fruits and vegetables? We never see that, but we see tons of fast food, hamburgers, and stuff. It has really shown that when you watch television, your food choices are affected by that. You go for calorie-dense foods that are usually high in fat and high in sugar.

I think it would benefit both children and adults alike.

The Vice-Chair (Ms. Marilyn Gladu): All right, that's your time.

[*Translation*]

Mr. Ayoub, you have seven minutes.

Mr. Ramez Ayoub (Thérèse-De Blainville, Lib.): Thank you, Madam Chair.

Dr. Henderson, there are two types of diabetes among youth, type 1 diabetes and type 2 diabetes. When a child receives a type 1 diabetes diagnosis, he will have to live with that and deal with it for all of his life.

Is the situation the same in the case of type 2 diabetes for a young person or an adult?

Dr. Melanie Henderson: Indeed, type 1 diabetes is considered a lifelong auto-immune disease. However, type 2 diabetes is generally a progressive disease. When the patient reaches the point where he needs treatment to maintain normal blood sugar levels, then it is really lifelong. We need to act upstream to prevent the development of type 2 diabetes.

Mr. Ramez Ayoub: I see.

There is much talk about lifestyle habits, available food, its sale, and people say that it has to be accessible to young people, particularly these days. Adults make choices but youngsters may not do so quite as much. Adults or parents are generally the ones who feed the children.

Regarding what is found on convenience store shelves, there was another study recently about sweet alcoholic drinks. I don't want to talk about alcohol as such, but about the sweet drinks, their availability and the way in which they are presented and marketed.

How do you feel about the fact that juices are included in the Canada Food Guide, whereas many feel that they should be removed, although there are good and bad sugars. As a specialist, what is your opinion?

● (1700)

Dr. Melanie Henderson: Thank you for the question.

It is a difficult issue, because sometimes a glass of orange juice is the only portion of fruit or vegetables that a child consumes in a day. People are always a bit reluctant to cut out that portion.

Personally, I consider that the problem with juice is its high sugar content. I think we would do better to encourage young people to eat an orange and drink a glass of water rather than hydrating with juice. In addition, according to my own personal clinical experience, my patients who drink juice can drink a litre a day.

In 2004, in Quebec, we assessed the quantity of soft drinks, which are also sweet drinks, consumed by children. We calculated that 9% of children of 4 years of age or less drank soft drinks at least three times a day. That is why we certainly have some awareness-raising work to do with young mothers and fathers to prevent the consumption of soft drinks as well as juice.

[*English*]

Mr. Ramez Ayoub: I have a full seven minutes. I thought I had only four minutes.

[*Translation*]

We were talking earlier about the cost of fruit in northern Canada. We would like to replace juice with fruit. What would be the solution, in your opinion, to allow access to better quality food? Should there be a government subsidy? How do you see that?

Transportation is important, as you mentioned earlier. Fresh foodstuffs, fruit and vegetables sent North cost much more than in other parts of the country. What is the solution? How will we finally manage to provide better choices to the population that lives in northern Canada?

[*English*]

Ms. Roslynn Baird: I think part of the solution is connecting young people with their elders and the teachings of how to harvest and eat from your geography, and eat food from nature. We've come very far from that. I think a lot of young people have lost the taste for wild game, fish, and traditional foods. Getting back to some of those traditional teachings would definitely be a very good place to start, like connecting youth with elders; doing those land-based teachings and programs that were mentioned previously; and learning rites of passage as to what are young people's responsibilities in the community to bring harvested food to elders and to provide healthy food for each other. A lot of those traditional teachings have been lost.

Some other solutions can be to have programming available around gardening, gathering of foods, and greenhouses. There are other ideas around that as well.

[*Translation*]

Mr. Ramez Ayoub: I appreciate your suggestion, but I think it is only in the medium or even the long term that we will be able to change all of these lifestyle habits.

In the short term, what can we do to change the content of young people's plates? Children are our first concern, but we are also concerned about adults, obviously. In the short term, how can we establish an action plan that will change things?

I suppose that becoming a farmer or changing the way production is done and providing vegetables and fresh fruit themselves would be quite a challenge in that part of the country.

[*English*]

Dr. Agnes Coutinho: One of the key things to address this will be to reach out to various communities. There is no one answer to your question, unfortunately. I think communities tend to know exactly what they need, and I bet if we were to connect with a community right now they would give us five points of what would make their lives easier to enable them to feed themselves, their families, and the youth in the right way. Sometimes access to resources is the biggest issue, but the type of research that's lacking varies from one community to another. Whether this is more of something for a provincial government to look into, or whether it's a national issue to address, it is something that will require a very specific look into what the communities need.

● (1705)

The Vice-Chair (Ms. Marilyn Gladu): Thank you so much. We're at the end of our time. I want to thank our witnesses for your input on our study today.

We're going to suspend now and go into committee business. I would ask for everyone's co-operation. We have to clear the room of everyone who is not part of the committee, in order to do that. So let's go ahead and do that now.

[*Proceedings continue in camera*]

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